

var. *concamerata* Desh., and our California species of *Zirfaea* is left without a name. I propose for it the new name *Zirfaea pilsbryi*.

ZIRFAEA PILSBRYI, new species. Pl. 3, figs. 1, 2.

Type 50809 A. N. S. P., from Bolinas, California (Henry Hemphill). Paratypes in Lowe collection.

Shell large, transverse, obliquely divided by a shallow furrow proceeding from the umbonal apex to the basal margin and forming a corresponding rib on the internal surface of valve. Posterior to the furrow the shell is marked only by growth wrinkles; on the anterior half they appear as sharp ribs which are produced into sharp spines in unevenly spaced radiating lines continuing to the sharply crenulated margin. Diameter of type, 36 mm.; alt., 37 mm.; length, 75.5 mm.

Our shell differs from the typical North Atlantic *Z. crispata* (Linn.) in being a longer and narrower shell, with the apophysis, or internal spoon-shaped process, much broader and much more concave. The anterior end of our shell is more markedly attenuated, the dividing furrow more oblique and not so prominent as in *Z. crispata* (L.)

In the north it reaches a large size, up to 120 mm. long (Newport, Oregon, coll. by J. G. Malone). Mr. Malone reports that they are eaten. A large one sent to the Academy, Philadelphia, weighed 17 ounces shell and all.

ON THE NAME MITRA LINEATA

BY J. R. LE BROCTON TOMLIN

There are no less than five uses of this combination to be considered:

(a) *Mitra lineata* Schumacher, Ess. Nouv. Syst., p. 239, 1817. According to Dautzenberg and Bavay in Journ. de Conch. 67, pp. 150, 153, this shell was a *Varicella*; but Schumacher only says that his *Mitra* "à la forme à peu près de"

Chemnitz's figures 1372, 1373 (he meant 1371, 1372) in vol. IV, which represent the well-known *Varicella leucozonias* (Gmelin). Schumacher goes on to say how his species differs from that of Chemnitz, and evidently mentioned these figures chiefly on account of the color, *M. lineata* being described as "d'une couleur brune avec des lignes blanches longitudinales, très serrées". Küster described and figured a *Mitra* from the Gotha Museum which agrees well with Schumacher's account. In any case, from all the evidence obtainable, *lineata* Schum. seems to be a synonym of *paupercula* L. It is incredible that so good a conchologist as Schumacher would group a *Varicella* with five genuine species of *Mitra*, to form his half-dozen examples of the genus.

(b) *Mitra lineata* Hoeninghaus, Neues Jahrb., 1831, p. 152, for a tertiary fossil from Dax. This is a *nomen nudum*.

(c) *Mitra lineata* Isaac Lea, Contrib. Geol., p. 168, pl. V, fig. 174, 1833, for a Claiborne fossil. De Gregorio in Ann. Géol. Paléont., livr. 7, p. 73, Jan., 1890, describes a var. *terplicata*, possessing only three columellar folds while Lea's type has four. He had not seen the quadriplicate form. In Lea's type the anterior fold forms the inner outline of the columella continuing downward and would very probably not be counted as a fold by Gregorio. It is, therefore, at present doubtful whether the two authors really had different shells before them, and it seems best to let *Mitra terplicata* Greg. stand for *M. lineata* Lea, at any rate for the present.

(d) *Tiara lineata* Broderip (ex Swainson MS.), P. Z. S. London, 1835, p. 195, 8/4/1836, for a *Mitra* from Salango, W. Colombia, dredged by Cuming. It is well figured in Reeve's Conch. Icon. II, pl. xvii, fig. 127. This species may be renamed MITRA ERYTHROGRAMMA. It is recorded in Journ. of Conch. XVIII, p. 158, from Gorgona Island, and from James Island, Galapagos.

(e) *Mitra lineata* Swainson, Treatise Malac., p. 319, 1840. This is based on a figure in the Encycl. Méthod. and is the same species as *tigrina* A. Adams.

Some authors have taken Gmelin's *Voluta lineata*, Syst. Nat. ed. xiii, p. 3454, to be a *Mitra*. The figures referred to in Martini, however, more probably represent the common Mediterranean *Polia d'orbignyi* (Payr.). The type is unfortunately no longer to be found in Spengler's collection at Copenhagen.

Swainson's *Conoelix lineatus*, Zool. Illustr., ser. 1, vol. 1, pl. 24, Jan., 1821, is probably a discolored *M. conica* Schum., according to Reeve.

I am indebted to Dr. Pilsbry for advice on species (a) and (c).

MONOCONDYLAEA COSTULATA MORICAND

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Dr. F. Haas in "Senckenbergiana", vol. 13, No. 1, page 48, figs. 31a and 31 b, 1931, has discussed the type and another specimen of *Unio (Monocondylaea) costulata* Moricand, 1858.¹ His figures of the type are excellent, and he has sent to the United States National Museum copies of the still more excellent original photographs from which these figures were made. This type is deserving of even closer study than has been given to it, for while both Moricand and Haas place it in *Monocondylaea*, it has some features which seem to make it impossible that this can be the correct genus. If it be the correct genus, the species is certainly an aberrant one.

As Haas points out, Moricand's figure over-emphasizes the depression running from the beaks to the ventral margin, and also has the ribs entirely out of proportion. In fact Moricand's figure might be said to be more or less diagrammatic, indicating that he was satisfied to transmit to his readers a general impression without being too exact. In his description of this species, Moricand says, "epi-

¹ 1858. *Revue et Magasin de Zoologie*, p. 453, plate 15, figures 1 and 1a.